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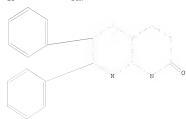
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100.0% PROCESSED 1636 ITERATIONS 104 ANSWERS

SEARCH TIME: 00.00.01

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=> s 12 L3

2 L2

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ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

AB Novel naphthyridinones [I; R1 = halo, CN, NH2 and derivs., (un)substituted alkyl, hetero/aryl, etc.; R2 = H, NH2 and derivs., (un)substituted alk(en/yn)yl, aryl, etc.; or R1CCR2 = (un)substituted 4-7-membered ring; R3 = H, CF3, OCF3, halo, (un)substituted cyclo/alkyl, alkyloxy; R4 = H, CH2-R5; R5 = H, (un)substituted alk(en/yn)yl, hetero/aryl, etc.; Ar1, Ar2 = independently (un)substituted hetero/aryl] and their pharmaceutically acceptable salts are antagonists and/or inverse agonists of the cannabinoid-1 (CB1) receptor and are useful in the treatment, prevention and suppression of diseases mediated by the CB1 receptor. The compds. of the present invention are useful as centrally acting drugs in the treatment of psychosis, memory deficits, cognitive disorders, migraine, neuropathy, neuro-inflammatory disorders including multiple sclerosis and Guillain-Barre syndrome and the inflammatory seguelae of viral encephalitis, cerebral vascular accidents, and head trauma, anxiety disorders, stress, epilepsy, Parkinson's disease, movement disorders, and schizophrenia. For example, II was prepared in 5 steps: (a) condensation of DMF di-Me acetal with 4-Chlorobenzyl 2,4-dichlorophenyl ketone; (b) cyclocondensation with 2-cyanoacetamide; (c) reaction of pyridinone with POC13; (d) amination of chloride with MeNH2; and one pot acvlation/cyclization of methylated amine with (AcO)20 in Pv the presence of DMAP/CH2Cl2. CB1 antagonist/inverse agonist compds. I have IC50s of <1 μM in the CB 1 binding assay; selective CB 1 antagonist/inverse agonist compds. have IC50s 100-fold greater in the CB2 binding assay than in the CB1 assay, and generally have IC50s of ≥1 µM in the CB2 binding assav. Preferred CB1 antagonist/inverse agonist compds. I generally have EC50s of <1 µM in the CB1 functional assay and selective CB1 antagonist/inverse agonists generally have EC50s of >1 µM in the CB2 functional assay.

AN 2005:451381 CAPLUS

DN 143:7697

- TI Preparation of substituted naphthyridinones as antagonists and/or inverse agonists of cannabinoid-1 receptor with therapeutic uses
- IN Debenham, John S.; Doss, George A.; Madsen-Duggan, Christina B.; Walsh, Thomas F.
- PA Merck & Co., Inc., USA SO PCT Int. Appl., 118 pp.
- CODEN: PIXXD2
- DT Patent
- LA English FAN.CNT 1

PAN.	PA:	PATENT NO.					D	DATE			APE	LICA	TION	DATE				
PI		2005	0472		A1		20050526			WO 2004-US36102		102		20041029				
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											US	2003	-5170	60P		P 2	0031	104
											WO	2004	-US36	102		W 2	0041	029

OS CASREACT 143:7697; MARPAT 143:7697

(drug candidate; preparation of naphthyridinones as antagonists and/or

IT 852315-35-6P, N-[1-(2,4-Dimethoxybenzyl)-3-acetyl-7-(2,4-

dichlorophenyl)-6-(4-chlorophenyl)-1,2-dihydro-2-oxo-1,8-naphthyridin-4-yl]-N-acetylacetamide

RL: BYP (Byproduct); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

inverse agonists of cannabinoid-1 receptor)

RN 852315-35-6 CAPLUS

CN Acetamide, N-acety1-N-[3-acety1-6-(4-chloropheny1)-7-(2,4-dichloropheny1)1-(2,4-dimethoxypheny1)methy1]-1,2-dihydro-2-oxo-1,8-naphthyridin-4-y1](CA INDEX NAME)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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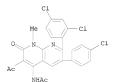
 ${\tt L3}$ ${\tt ANSWER~1~OF~2~CAPLUS~COPYRIGHT~2009~ACS~on~STN~GI}$

AB Synthesis, SAR, and binding affinities are described for a new class of 1,8-naphthyridinones I (R1 = H, Me, Me2CHCH2, MeOCH2CH2, PhCH2, etc.; R2 = H, Me, CN, MeO, Me2N, Me2CH, MeCO; R3 = Me, H2N, Me2N, MeCONH, HOCH2CONH, etc.) as CB1 receptor specific inverse agonists. Food intake, knockout mouse, and pharmacokinetic evaluation of I (R1 = Me; R2 = MeCO; R3 = MeCONH) indicate that this compound is an effective orally active modulator of SB1.

- AN 2005:1341986 CAPLUS
- DN 144:232941
- TI Synthesis of functionalized 1,8-naphthyridinones and their evaluation as novel, orally active CB1 receptor inverse agonists
- AU Debenham, John S.; Madsen-Duggan, Christina B.; Walsh, Thomas F.; Wang, Junying; Tong, Xinchun; Doss, George A.; Lao, Julie; Fong, Tung M.; Schaeffer, Marie-Therese; Xiao, Jing Chen; Huang, Cathy R.-R. C.; Shen, Chun-Pyn; Feng, Yue; Marsh, Donald J.; Stribling, D. Sloan; Shearman, Lauren P.; Strack, Alison M.; MacIntyre, D. Euan; Van der Ploeg, Lex H. T.; Goulet, Mark T.
- CS Department of Medicinal Chemistry, Merck Research Laboratories, Rahway, NJ, 07065, USA
- SO Bioorganic & Medicinal Chemistry Letters (2006), 16(3), 681-685 CODEN: BMCLE8; ISSN: 0960-894X
- PB Elsevier B.V.
- DT Journal
- LA English
- OS CASREACT 144:232941
- IT 852315-00-5P
 - RI: PAC (Pharmacological activity); PKT (Pharmacokinetics); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(preparation of functionalized $1, \hat{\theta}$ -naphthyridinones and their evaluation as orally active CB1 receptor inverse agonists)

- RN 852315-00-5 CAPLUS
- CN Acetamide, N-[3-acetyl-6-(4-chlorophenyl)-7-(2,4-dichlorophenyl)-1,2-dihydro-1-methyl-2-oxo-1,8-naphthyridin-4-yl]- (CA INDEX NAME)



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT